



Title: METHOD AND SYSTEM FOR PROVIDING
DIAGNOSTICS FOR A WORK MACHINE

Inventor: Tara L. Cobble et al

Attorney Docket No. 00-104

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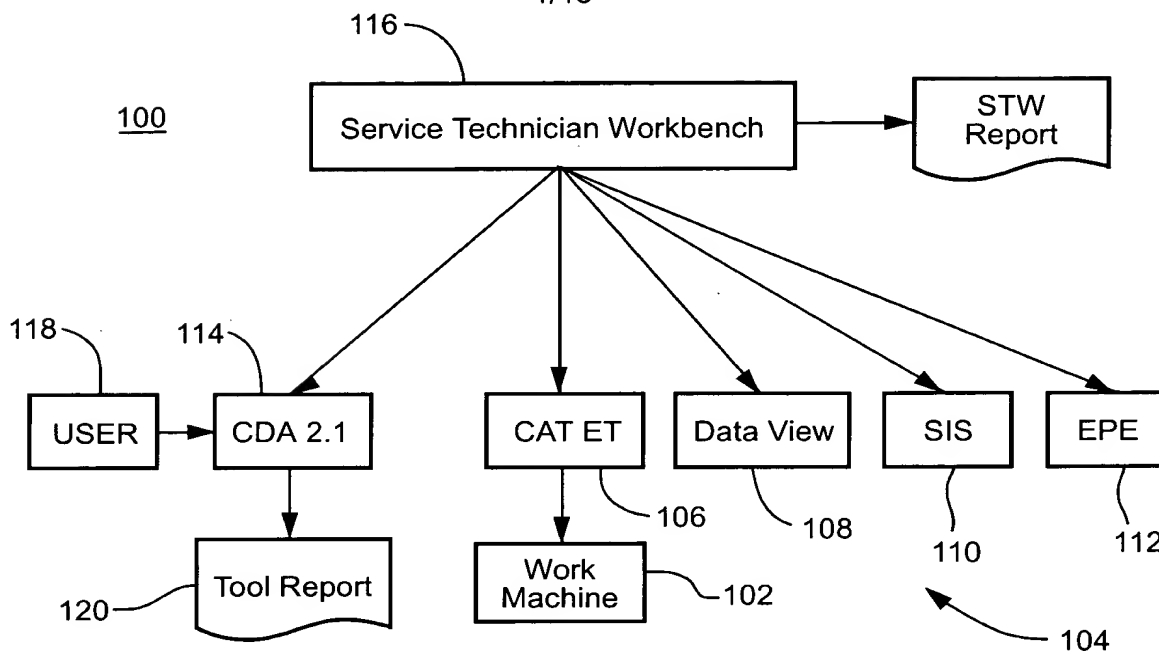
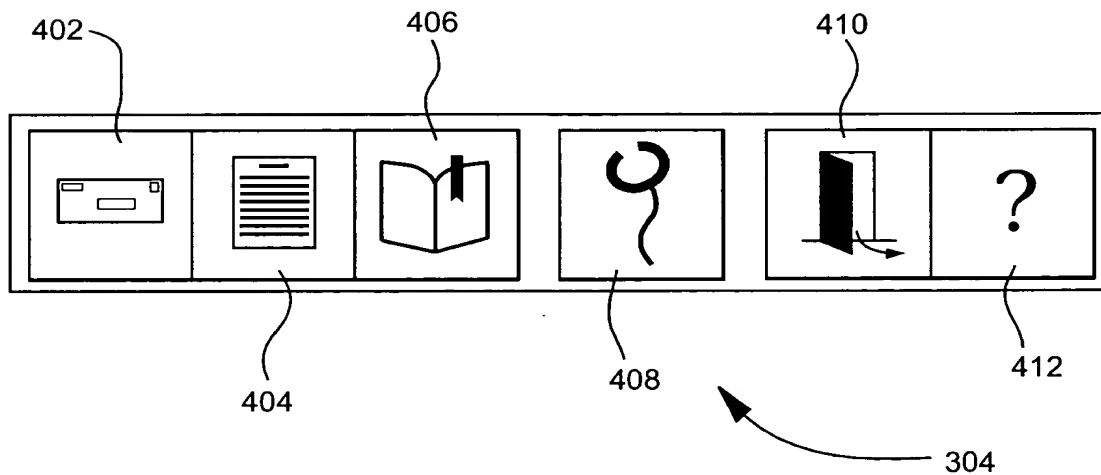
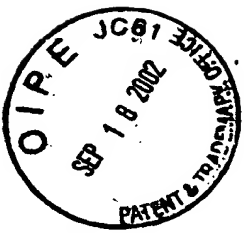


FIG - 1

FIG - 4





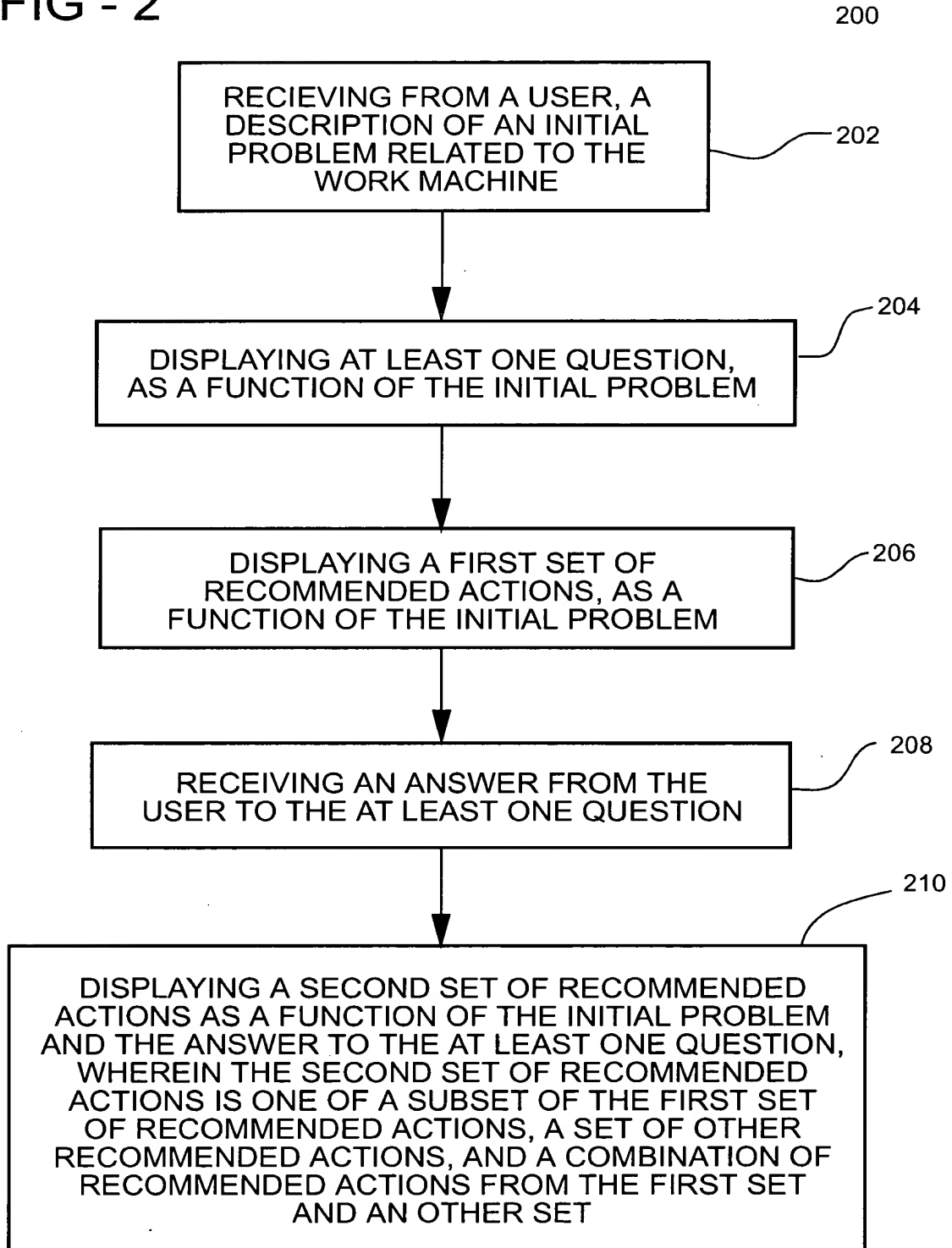
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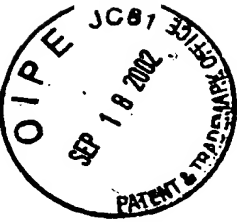
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FIG - 2





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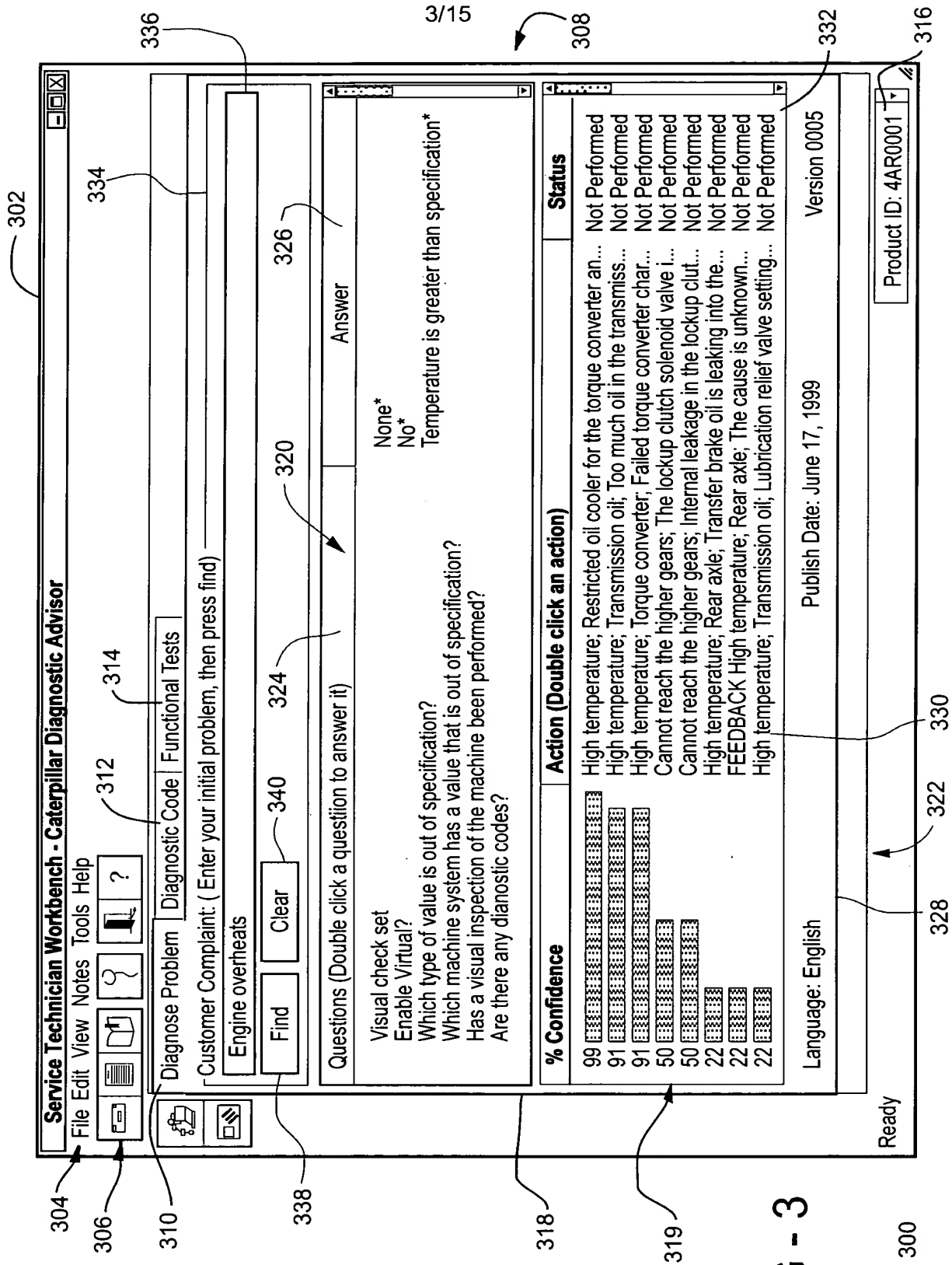
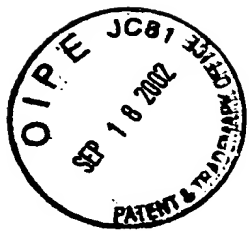


FIG - 3



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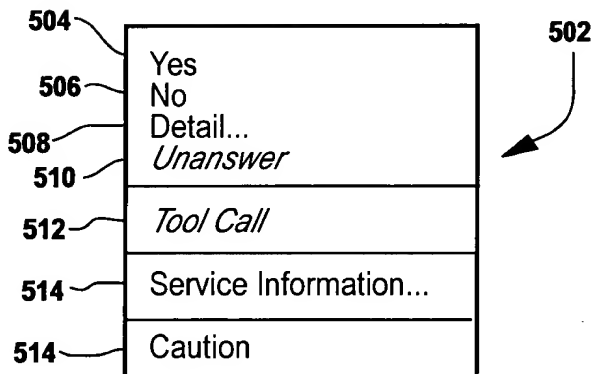


FIG - 5

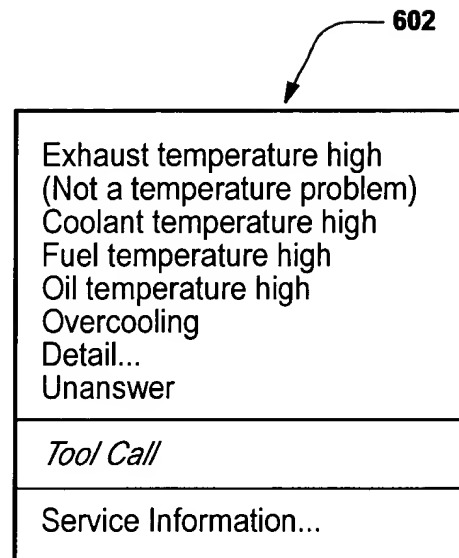


FIG - 6

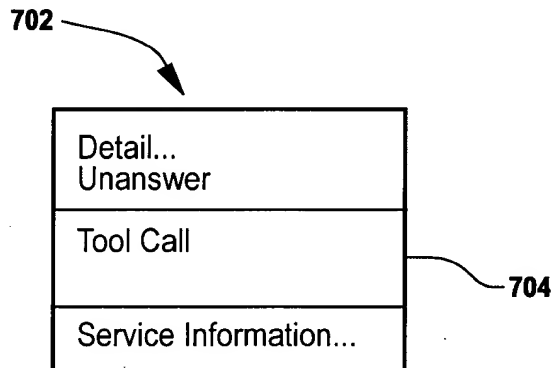


FIG - 7

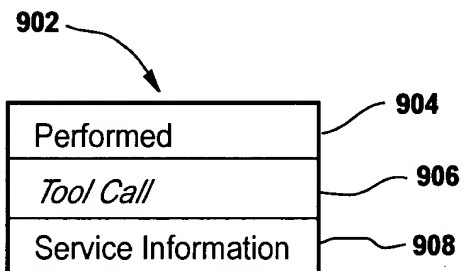


FIG - 9

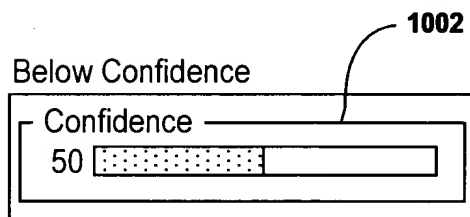


FIG - 10A

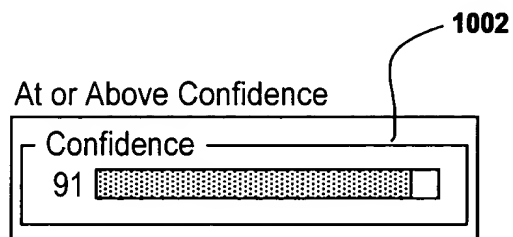


FIG - 10B



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FIG - 8

Yes

No

Detail...

Unanswer

S/S

Service Information ▶

3406E Truck Engine, Fuel System, 1LW

3406E Truck Engine, Fuel Priming Procedure, 1LW

3406E Truck Engine, Fuel System Inspection, 1LW

3406E Truck Engine, Fuel System Pressure, 1LW

3406E Truck Engine, Fuel Pressure, 1LW

3406E Truck Engine, Unit Injector Adjustment, 1LW

3406E Truck Engine, Checking Engine Cylinders Separately, 1LW

3406E Truck Engine, Static Check of the Timing Gear Position, 1LW

3406E Truck Engine, Setting Backlash for Camshaft and Adjustable Idler Gear, 1LW

3406E Truck Engine, Finding Top Center Compression Position for No. 1 Piston, 1LW

3406E Truck Engine, Electronic Injection Timing Troubleshooting, 1LW

802

804

806

FIG - 13

Alert

DANGER

The following actions can cause serious injury

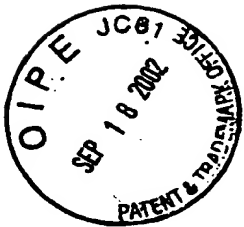
CAUTION

Ensure all safeguards are in place

OK

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FIG - 11



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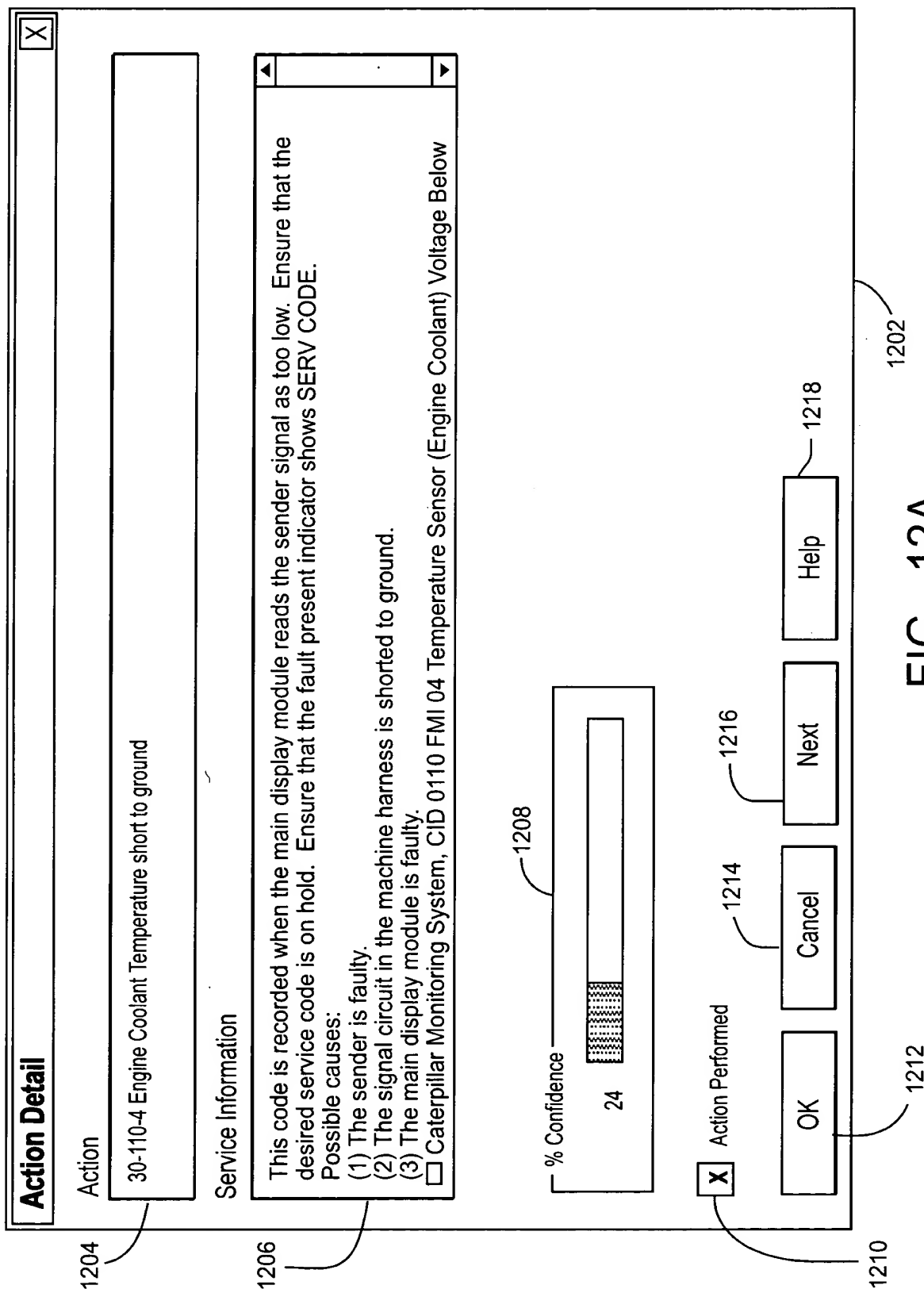
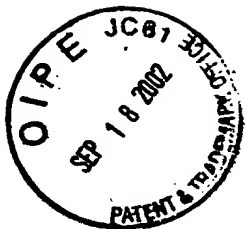


FIG - 12A



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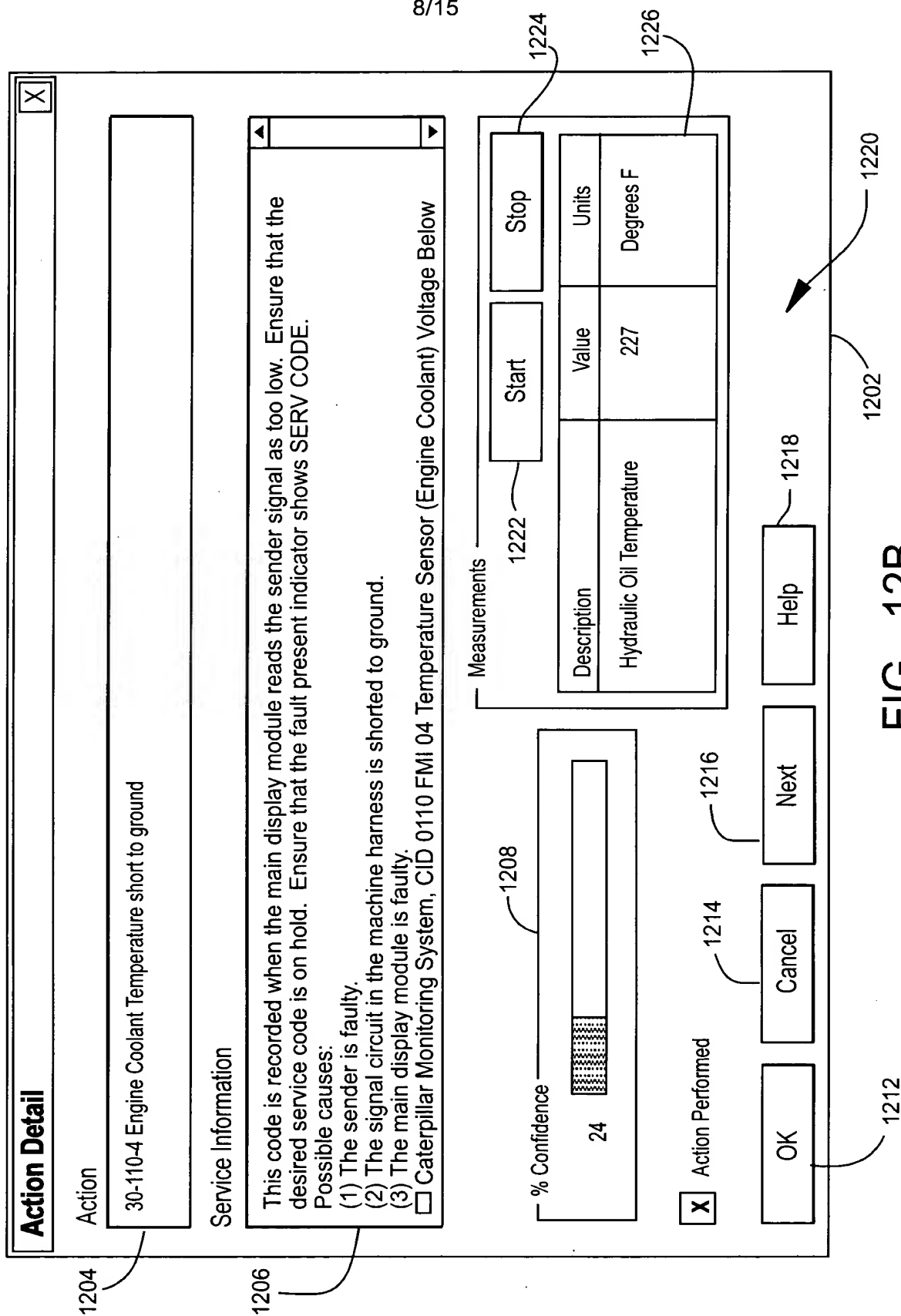
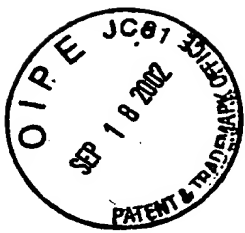


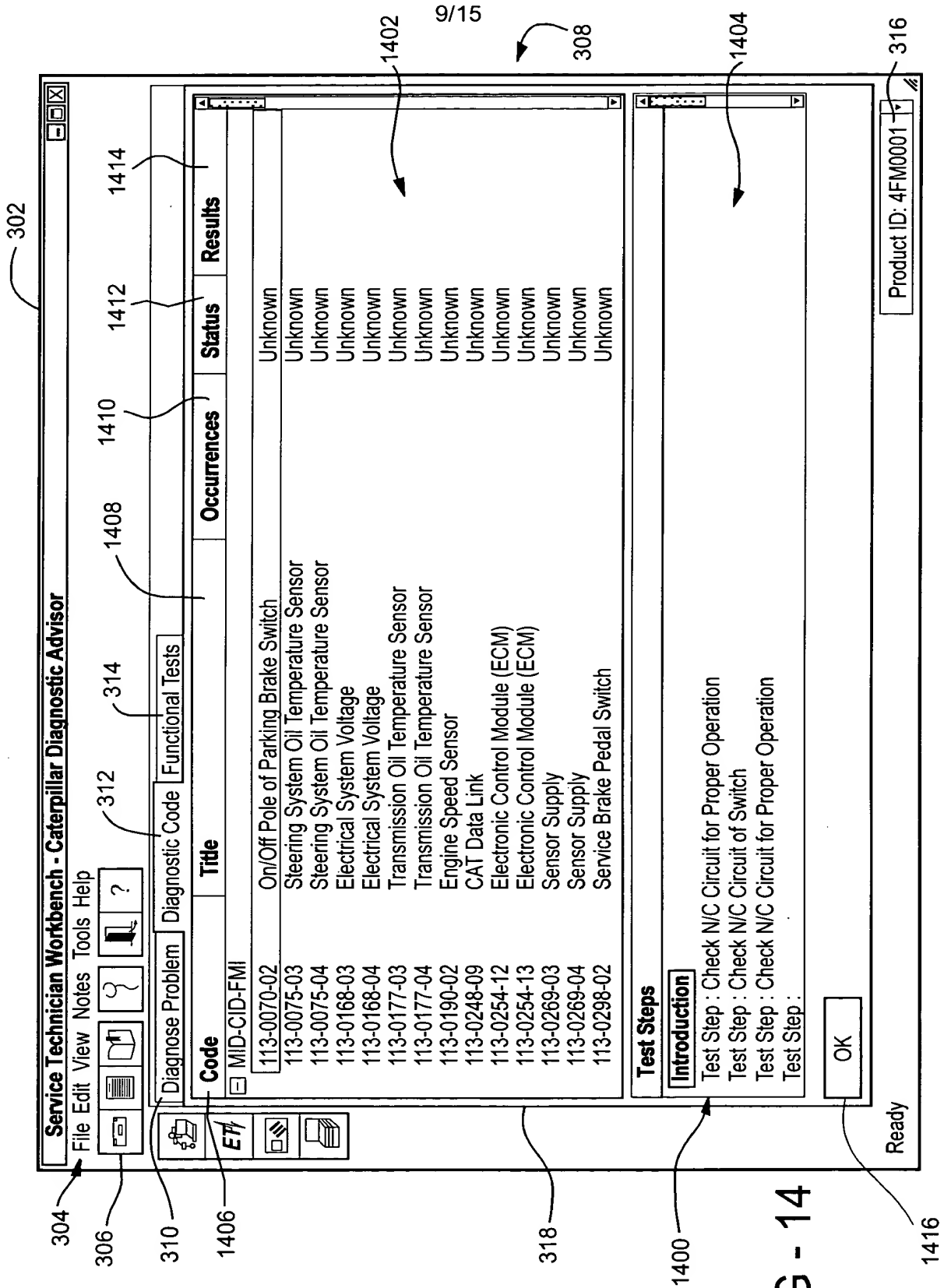
FIG - 12B

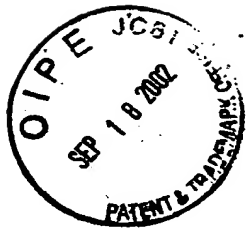


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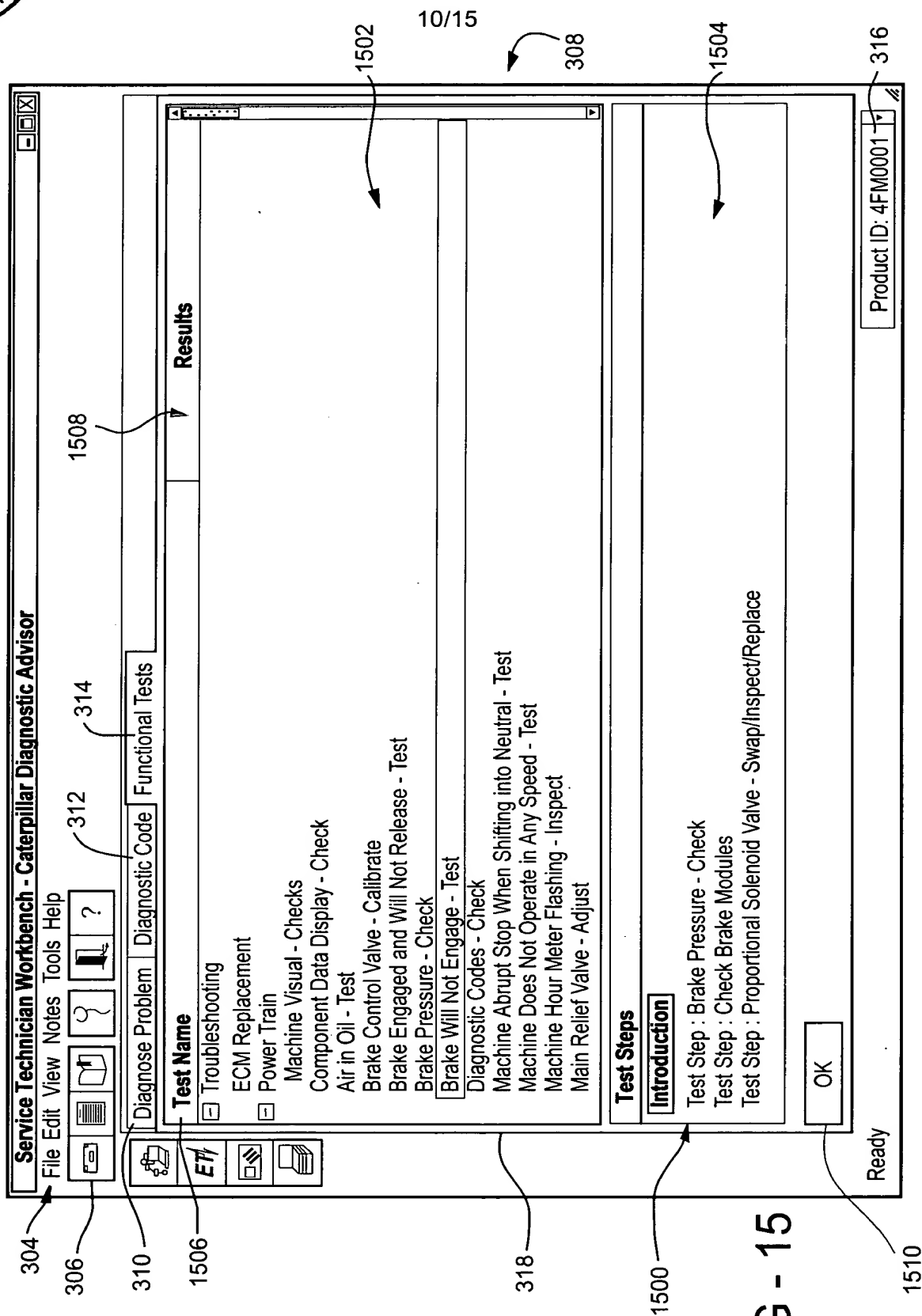
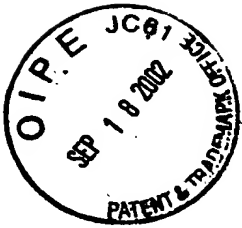


FIG - 15



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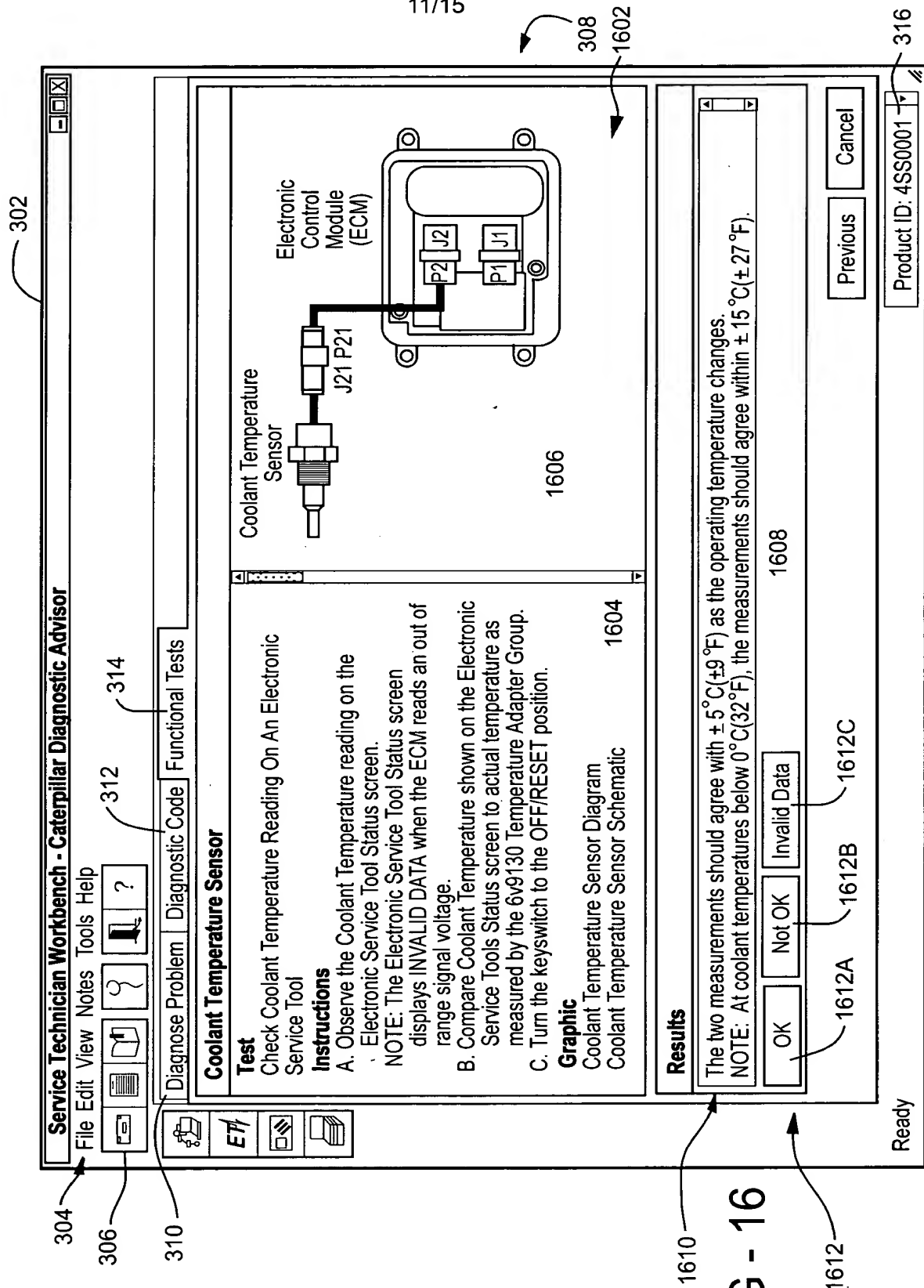
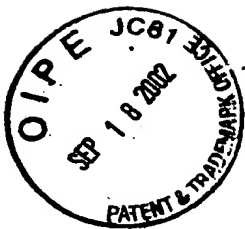


FIG - 16



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Service Technician Workbench - Caterpillar Diagnostic Advisor

File Edit View Notes Tools Help

Diagnose ProblemDiagnostic CodeFunctional TestsReport

Caterpillar Inc.

Dealership:
Customer:
Employee:
Work Order:
Service Date:
Serial Number:
Model:
Service Meter Units:

Diagnostic Detailed Report

Dealer Code - Dealer Name
bob
test- Full Name (STW PILOT 3)

09/13/1999
2KR
980G WHEEL LOADER
0.000000

Description
Engine won't crank

Questions

Description search tool active

Answers

Yes*

Print

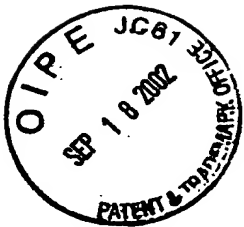
Save

Refresh

Ready

Product ID: 2KR0001

FIG - 17



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Create New Report [X]

Customer Code:

*** Name:**

Customer Complaint

Engine won't crank

Employee Name : Full Name

Employee ID : test

Service Date : 9/13/1999

* - required

Service Meter Units: ET Detected: Manually Entered: 0.000

Work Order:

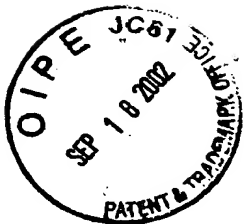
Arrangement Number: test

Create Report Cancel Help

FIG - 18



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X

Feedback Form

Please type in the following information to submit your improvement ideas:

Submitter

Name

Telephone

☐ Service Technician

☐ Service Planner

☐ Other- please specify

Did this diagnostic session solve your problem?

☐ Yes

☐ No

☐ Provided partial solution

Diagnosics allowed me to quickly and accurately identify and repair the root cause of the problem

☐ Strongly Agree

☐ Agree

☐ Neither

☐ Disagree

☐ Strongly Disagree

Next time I have a problem, I will use this system

☐ Yes

☐ No

☐ I don't know

Initial problem description

engine temperature

Describe the root cause

Additional tests performed and results

Describe the repair made

Additional feedback / suggestions

* - Required

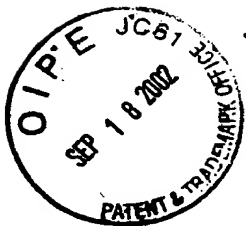
OK

Cancel

Clear

FIG - 19

1902



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Service Technician Workbench - Caterpillar Diagnostic Advisor

File Edit View Notes Tools Help

Diagnose Problem

Diagnostic Code

Functional Tests

Active/Logged Codes

New	Code	Code Description	Occurrences	Status
*	080-0002-11	Cylinder 2 Fault		Logged
*	080-0004-11	Cylinder 4 Fault		Active/Logged
*	080-0005-11	Cylinder 5 Fault		Active
*	080-0026-06	Multi-Function Output #1 Short Circuit		Logged
*	080-0030-08	Invalid PTO Throttle Signal		Active/Logged
	080-0001-11	Cylinder 1 Fault		Active
	080-0003-11	Cylinder 3 Fault		Logged
	080-0006-11	Cylinder 6 Fault		Active
	080-0022-13	Check Timing Sensor Calibration		Logged
	080-0026-05	Multi-Function Output #1 Open Circuit		Active
	080-0030-13	PTO Throttle Sensor Calibration		Active

Find

* - New codes since last viewed

Ready

Product ID: 1LW0001

FIG - 20

2002